

Ephron Wu

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EDUCATION

Carnegie Mellon University - Master of Science

- Major in Software Engineering

Aug 2025 - Dec 2026 (Expected)

Cumulative GPA: In Progress

Northwestern University - Master of Engineering Management

- Concentration: Product Management

Sep 2023 - Dec 2024

Cumulative GPA: 3.89/4.00

Worcester Polytechnic Institute - Bachelor of Science

- Major in Computer Science, Minor in Data Science

Aug 2016 - Dec 2020

Cumulative GPA: 3.81/4.00

WORK EXPERIENCES

State Grid Corporation of China, Beijing, China – Full-time Software Engineer

Apr 2022 - Aug 2023, Feb 2025 - Jul 2025

Platform and Application Development Team in State Grid Information and Telecommunication Group

- Developed and maintained Dianwang Mall, an internal e-commerce platform, with a 5-person dev team using **MERN stack**, serving over **22K internal clients** and resulting in a **~30% increase** in finance department's internal processing efficiency
- Implemented backend architecture for Tongxin Space, a chat application, with **Node.js**, **Express.js**, **MongoDB**, **Socket.io** real-time messaging, **JWT** authentication system, and comprehensive testing suite using **Jest** and **Supertest** for over **12K internal users**
- Refactored legacy codebase for improved performance and maintainability, conducted over 270 code reviews, and mentored 2 interns through full-stack best practices, establishing engineering standards and elevating overall code quality

Meta (Facebook), Menlo Park, CA – Full-time Software Engineer

Feb 2021 - Mar 2022

Group Community Team

- Developed and deployed Facebook Groups Featured section using **Comet framework**, **PHP backend services**, **GraphQL APIs**, and **Relay** data fetching, enhancing user engagement across Facebook Groups' **1.8B** user base
- Enhanced UX across Facebook Groups including announcement broadcasting system, real-time settings notifications, and optimized loading animations to reduce user friction and improve platform responsiveness
- Maintained **99.9% uptime** for Facebook Groups platform through on-call rotations, performance monitoring, and production incident management with zero escalated cases

Amazon, Seattle, WA – Full-time Software Engineer Intern

May 2020 - Aug 2020

Warehouse Delivery Team

- Built comprehensive logging for delivery systems using **Java** and expanded test coverage to ensure code quality and system reliability for package processing operations
- Created monitoring dashboards with data visualization and log aggregation using internal Amazon web dev tools, enabling operations and development teams to track system performance metrics

PROJECTS

HiChef, AI Agent for Cooking

Apr 2024 - Jun 2024

- Built ChatGPT-style cooking education web application using **React**, **Node.js**, **Vite**, and **Google Cloud Platform**, implementing full-stack architecture with **Gemini API** integration
- Applied **fine-tuning** techniques to Google Cloud Gemini model, developed prompt engineering patterns for cooking instruction, and optimized API configuration parameters to improve response relevance and user interaction flow

EMU, Depression Detector Application

Aug 2018 - Mar 2019

- Led a 5-person dev team building an **Android** application collecting data (SMS, voice, GPS, etc.) with feature extraction pipeline using NLP tools (LIWC, TextBlob), acoustic analysis (OpenSMILE, Praat), and feature selection across 1,881 engineered features
- Trained and optimized the EMU ML Pipeline, using **Python**, by implementing 7 ML algorithms (Random Forest, SVM, XGBoost, Neural Networks, etc.) to achieve **0.81 F1-score** for depression detection from over 1,900 smartphone users

SKILLS & CERTIFICATIONS

- Languages:** Java, Python, JavaScript, TypeScript, PHP, HTML, CSS, R
- Frontend:** React, Next.js, Relay, Comet
- Backend:** Node.js, Express.js, GraphQL, Socket.io, REST APIs, JWT Authentication

- Cloud:** AWS, Google Cloud Platform
- Database:** MySQL, Oracle, MongoDB
- Tools & Testing:** Git, Vite, JUnit, Jest, Supertest
- Certifications:** AWS Certified Developer Associate, Google Project Management